

Introduction to Globus

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Land Acknowledgement

We would like to acknowledge that

- University of British Columbia, Point Grey Campus (Vancouver) is located on the traditional, ancestral, and unceded territory of the xwməθkwəy̓əm (Musqueam) People.
- University of British Columbia, Okanagan Campus (Kelowna) lies on the unceded territory of the Syilx (Okanagan) Peoples

What is Globus?

*With Globus, researchers can **move, share, & discover** data via a single interface – whether your files live on a high-performance computing cluster (HPC), the commercial cloud, or your workstation.*

Benefits

- Data transfers can be initiated and left unmonitored until the transfer is completed.
- Data transfers automatically resumes after issues are resolved – e.g., network issues
- Maintains data integrity; checks the transferred file is identical to the original
- Uses existing institutional accounts – e.g., CCDB account, university account
- Encrypted data transfers

Security

- Encryption of research data during transfer
- Identities provided and managed by institutions
- Data remains at institutions, not stored by globus
- Integrity checks of transferred data
- High availability and redundancy

Common Use Cases

- Transferring data from workstations to the High-Performance Computing cluster
- Transferring to and from storage solutions
- Backing up and replicating research data
- Sharing research data with collaborators and the research community

User Interfaces

- Web interface
- Command line interface (globus-cli)
- Application Programming Interface (API)

Endpoints

- The Digital Research Alliance of Canada (the Alliance)
 - High Performance Computing (HPC) clusters – e.g., Béluga, Cedar, Graham
 - Arbutus Object Storage
- University of British Columbia (UBC)
 - UBC ARC Sockeye (HPC cluster)
 - UBC ARC Chinook Object Storage

Globus Connect Personal

- Use Case: transfer data to and from a workstation or computer
- The software is available for Windows, macOS, and Linux
- Globus Subscription Group (previous Globus Plus)
 - To share data from your workstation via Globus
 - To transfer data from one workstation to another via Globus

Globus Connect Personal

- High Assurance
 - Authenticate with a specific identity within session
 - Enforces encryption of all user data in transit
- Enforce Encryption
 - Setup on the Globus GUI
 - Find the endpoint (e.g., Work Computer) --> Overview --> Edit Attributes --> Force Encryption
- Files are not hosted on Globus. If you do not intend to delete the data from your workstation, do not delete it from the Globus interface

Globus Connect Server

- Use Case: to add a lab cluster, campus research computing system, or other multiuser HPC facilities as a Globus endpoint.
- Designed for multi-user systems, and will typically be installed by a systems administrator
- Available for Linux

Globus Sharing

- Guest Collections
 - Read-only, Read and Write, or Public Access
 - Groups – to share with groups of collaborators (e.g., have the same role in the project)
- HPC clusters
 - The Alliance clusters
 - Default: home directory
 - Project: submit a request to globus@tech.alliancecan.ca
 - Exception: Niagara
 - UBC ARC Sockeye – project, scratch

More Information

- The Alliance Documentation: <https://docs.alliancecan.ca/wiki/Globus>
- Globus Documentation:
 - <https://docs.globus.org/>
 - <https://www.youtube.com/GlobusOnline>
- The Alliance Globus Subscription Group: globus@tech.alliancecan.ca
- Support
 - The Alliance: globus@tech.alliancecan.ca
 - UBC ARC: arc.support@ubc.ca



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